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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,120	08/14/2001	Ken Hanscom	Q00-1027-US1 / 11198.70	9955

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Robert A Saltzberg
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EXAMINER

RIVERA, WILLIAM ARAUZ

ART UNIT	PAPER NUMBER
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3654

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/930,120

Applicant(s)

HANSCOM, KEN

Examiner

William A. Rivera

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claims 1-13 and 35-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to Claim 1, line 5, the phrase “having a groove length in *a directly* substantially along the circumference” is awkward. It appears that the word “directly” should be replaced with the word --direction--.

Claim 36 is vague and indefinite. The claim does not contain any steps related to “manufacturing a tape roller”. This rejection would be overcome by deleting the phrase “a tape roller of” on line 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

—
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 10, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Daly (U.S. Patent No. 5,199,168).

With respect to Claims 1, 10, and 13, Daly, Figures 1-7, teaches a guide assembly, the guide assembly comprising: a rotatable first roller 20 including a perimeter surface, a circumference, a longitudinal axis and a groove 24 disposed into the perimeter surface, the groove having a groove length in a direction along the circumference, and a groove bottom that

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is substantially linear in a direction along the groove length; wherein the first roller includes a plurality of spaced-apart grooves, each of the grooves having a groove length that is less than the circumference; wherein the grooves are aligned substantially parallel to the circumference.

Claims 1-4, 10, and 26-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Hikita (U.S. Patent No. 6,427,941).

With respect to Claims 1-4 and 10, Hikita, Figure 1, teaches a guide assembly, the guide assembly comprising: a rotatable first roller 20 including a perimeter surface, a circumference, a longitudinal axis and a groove 24 disposed into the perimeter surface, the groove having a groove length that is less than the circumference; wherein the first roller includes a plurality of spaced-apart grooves, each of the grooves having a groove length that is less than the circumference; wherein the grooves are aligned substantially parallel to the circumference; wherein the grooves are semi-randomly distributed on the perimeter surface; the groove having a groove depth that varies along the length of the groove.

With respect to Claims 26-27, the method described in these claims would inherently result from the use of the guide roller of the Hikita as advanced above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 10, 12-13, 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daly (U.S. Patent No. 5,199,168) in view of Sawano et al (Japanese Patent No. 10-106074).

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With respect to Claims 1-4, 10, and 12-13, Daly, Figures 1-7, teaches a tape drive 10 including a take-up reel 14 and a head assembly 12, the guide assembly comprising a rotatable first roller R1 including a perimeter surface, a circumference, a longitudinal axis. Daly teaches all the elements of the guide roller except for a groove having a groove length less than the circumference. However, Sawano et al, Figures 1-3, teach a groove disposed into the perimeter surface, the groove having a groove length that is less than the circumference. It would have been obvious to one of ordinary skill in the art to provide Daly with a groove on the guide roller, as taught by Sawano et al, for the purpose of controlling dynamic air entrainment between the roller surface and the magnetic tape.

With respect to Claims 30-32, the method described in these claims would inherently result from the use of the tape drive with guide rollers of Daly in view of Sawano et al as advanced above.

Claims 1-4, 10, 12-13, 26-27, 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daly (U.S. Patent No. 5,199,168) in view of Hikita (U.S. Patent No. 6,427,941).

With respect to Claims 1-4, 10, and 12-13, Daly, Figures 1-7, teaches a tape drive 10 including a take-up reel 14 and a head assembly 12, the guide assembly comprising a rotatable first roller R1 including a perimeter surface, a circumference, a longitudinal axis. Daly teaches all the elements of the guide roller except for a groove having a groove length less than the circumference. However, Sawano et al, Figures 1-3, teach a groove disposed into the perimeter surface, the groove having a groove length that is less than the circumference. It would have been obvious to one of ordinary skill in the art to provide Daly with a groove on the guide roller,

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as taught by Hikita, for the purpose of controlling dynamic air entrainment between the roller surface and the magnetic tape.

With respect to Claims 26-27 and 30-32, the method described in these claims would inherently result from the use of the tape drive with guide rollers of Daly in view of Sawano et al as advanced above.

Claims 14-15, 20-22, 24, 28-29, 34, and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daly (U.S. Patent No. 5,199,168) in view of Sawano et al (Japanese Patent No. 10-106074) and further in view Hikita (U.S. Patent No. 6,427,941).

With respect to Claims 14-15, 20-22, 24, 28-29, and 34, teaches all the elements of the roller. Figures 2 and 3 of Sawano et al would appear to teach a groove that varies but it is not clear. However, Hikita, Figure 5, teach grooves that vary along their length. As such, it would have been obvious to one of ordinary skill in the art to provide Daly in view of Sawano et al that vary along their length, as taught by Hikita, for the purpose of allowing the air to travel both axially and circumferentially along the roller to escape from between the roller and the magnetic tape.

With respect to Claims 36-38, the method described in these claims would inherently result from the use of the tape drive with guide rollers of Daly in view of Sawano et al and Hikita as advanced above.

Claims 5-9, 11, 33, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daly in view of Sawano et al as applied to claims 1-4, 10, 12-13, 26-27, 30-32 above.

With respect to Claims 5-9, 11, 33, and 35, Daly in view of Sawano et al are advanced above. Daly in view of Sawano et al do not mention the particular dimensions of the grooves.

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However, it would have been obvious to one of ordinary skill in the art, as determined through routine experimentation and optimization, to dimension the grooves of Daly in view of Sawano et al as specified in Claims 5-9, 11, 33, and 35 because one of ordinary skill would have been expected to have routinely experimented to determine the optimum dimensions for a particular use.

Claims 16-19, 23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daly in view of Sawano et al and Hikita as applied to claims 14-15, 20-22, 24, 28-29, and 34 above.

With respect to Claims 16-19, 23, and 25, Daly in view of Sawano et al and Hikita are advanced above. Daly in view of Sawano et al and Hikita do not mention the particular dimensions of the grooves. However, it would have been obvious to one of ordinary skill in the art, as determined through routine experimentation and optimization, to dimension the grooves of Daly in view of Sawano et al as specified in Claims 16-19, 23, and 25 because one of ordinary skill would have been expected to have routinely experimented to determine the optimum dimensions for a particular use.

Claims 5-9, 11-12, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hikita as applied to claims 1-4 and 10 above or Hikita as applied to claims 1-4, 10, 14-15, 20-21 and 26-27 above.

With respect to Claims 5-9, 11, and 35, Hikita is advanced above. Hikita do not mention the particular dimensions of the grooves. However, it would have been obvious to one of ordinary skill in the art, as determined through routine experimentation and optimization, to dimension the grooves of Hikita as specified in Claims 5-9, 11, and 35 because one of ordinary

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skill would have been expected to have routinely experimented to determine the optimum dimensions for a particular use.

With respect to Claims 12, Hikita is advanced above. Hikita do not mention the use of a second roller. However, it would have been obvious to one of ordinary skill in the art to provide a second roller since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.

Response to Arguments

The new grounds of rejection were necessitated by applicant's amendment, e.g., the requirement for "a groove length in a directly substantially along the circumference, and a groove bottom that is substantially linear in a direction along the groove length".

With respect to applicant's remarks on page on page 10 regarding the Hikita reference, it should be noted applicant's are claiming a the groove bottom to be "*substantially*" linear. Thus, the Hikita reference reads on the claim, as set forth, because the surface is "*substantially*" linear.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

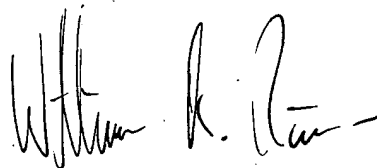
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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William A. Rivera whose telephone number is 571-272-6953. The examiner can normally be reached on Monday to Thursday - 5:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on 571-272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'William A. Rivera', with a stylized flourish at the end.

William A Rivera
Primary Examiner
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February 5, 2007